

Standardization of the Australian Medical Data Exchange Model

Michael Legg PhD





Agenda



- The National eHealth Program
- Pathology in Australia
- Standardisation in Australia
- Some projects

Communication



Any meaningful exchange of utterances depends upon the prior existence of an agreed upon set of semantic and syntactic rules

*ISO TR9007:1987 Information Processing Systems –
Concepts and Technology for the Conceptual Schema and
the Information Base*

That seems straight forward...



- For systems this has to occur at
 - The **business** level — with rules for exchange
 - The **information** or **semantic** level — so that computers are capable of recognising and intelligently interpreting the information which is exchanged
 - The **technical** level — messaging, connectivity, technical solutions etc.



The nine most terrifying words in the
English language are:

**‘I'm from the government
and I'm here to help.’**

Ronald Reagan

HiMSS 07

Successful E - Health Transitions: Australia's E- Health Initiatives

Dr Ian Reinecke, CEO

National E-Health Transition Authority
Australia

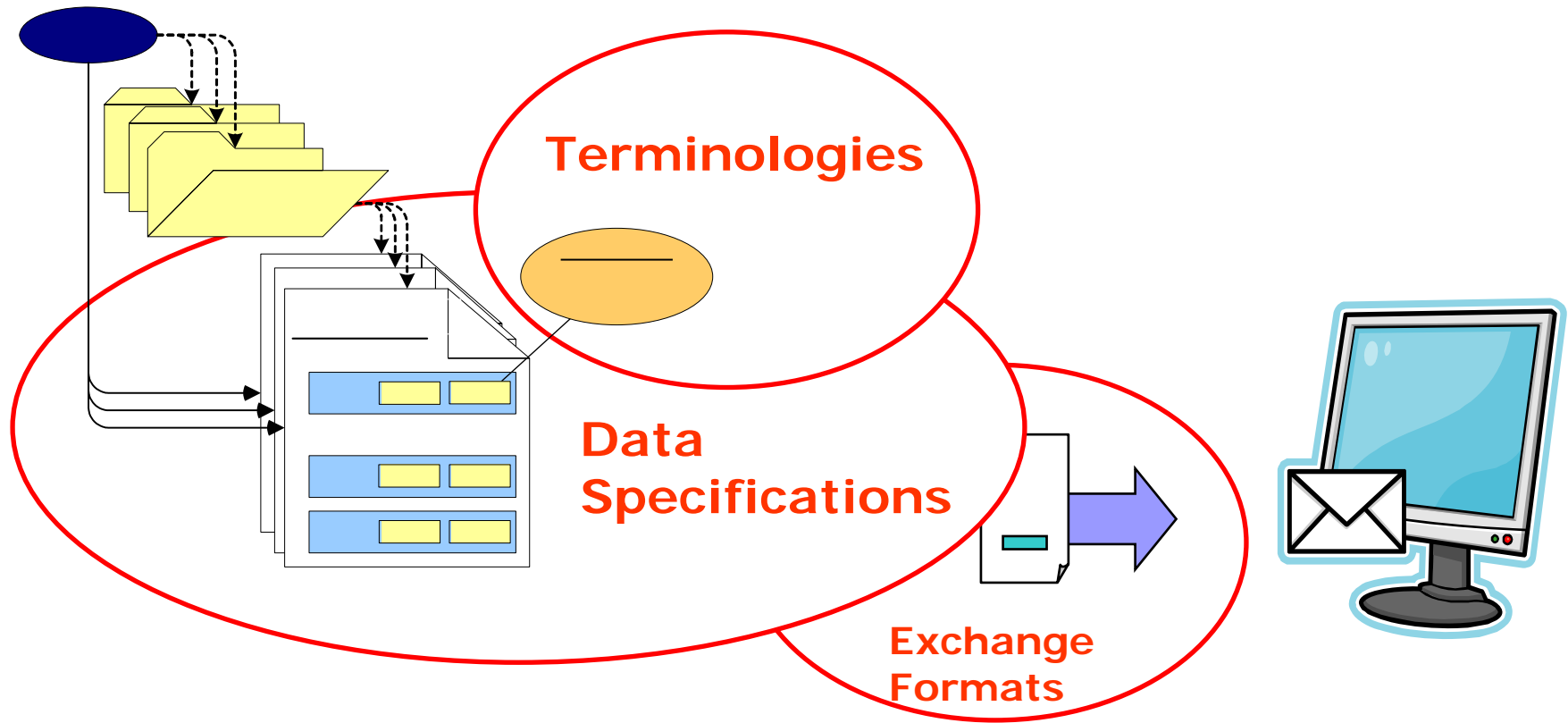
Acting nationally to accelerate healthcare reform

- Supporting a national approach by forming a single entity to:
 - Develop the standards, specifications, terminologies and formats to enable interoperability
 - Fund the 'missing pieces' of infrastructure in healthcare identifiers and clinical terminology
 - Develop the national policies required to protect privacy and patient consent
 - Establish a basis for modelling benefits from e-health to assist in assigning investment priorities

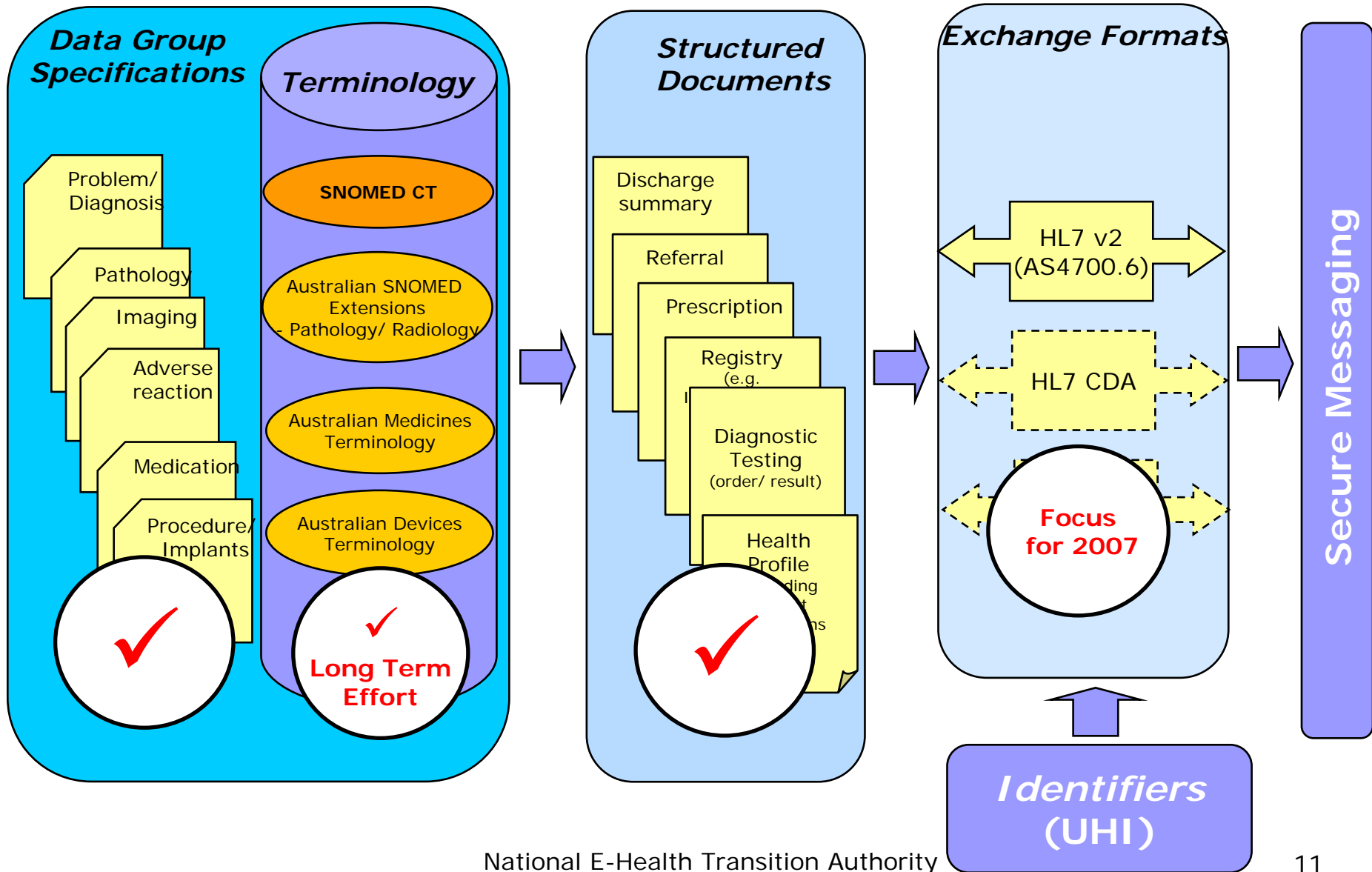
Key elements of NEHTA's work program

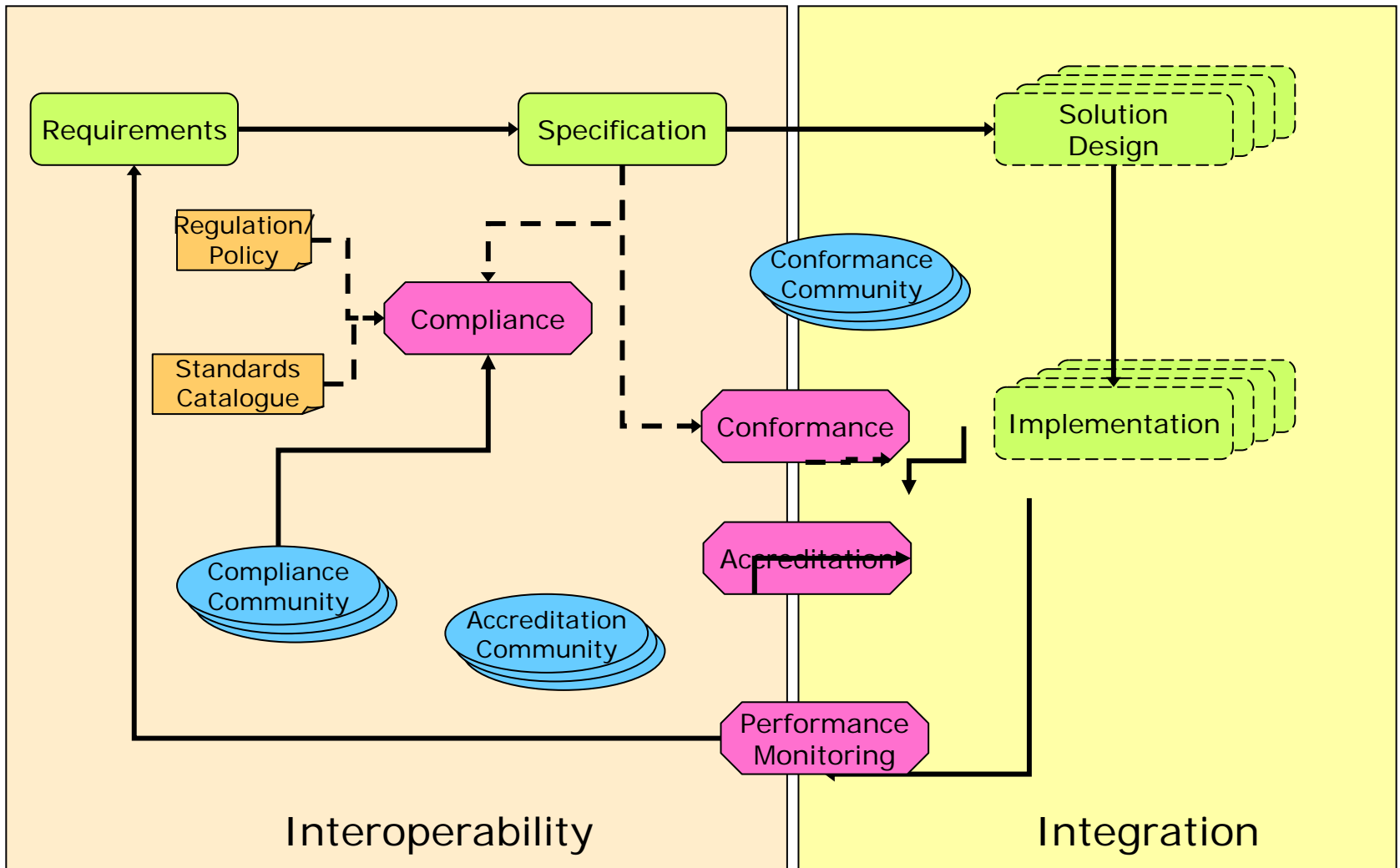
- Benefits – Seeking to identify the greatest benefits for least cost, in the shortest time, with least risk
- Identifiers - Uniquely identifying individuals and healthcare providers across Australia
- Terminologies - Exchanging clinical information electronically, using a common language with consistent terms, descriptions and formats
- Shared EHR - Designing a national system of shared electronic health records for authorised practitioners and consumers

Terminologies – interoperability in clinical information

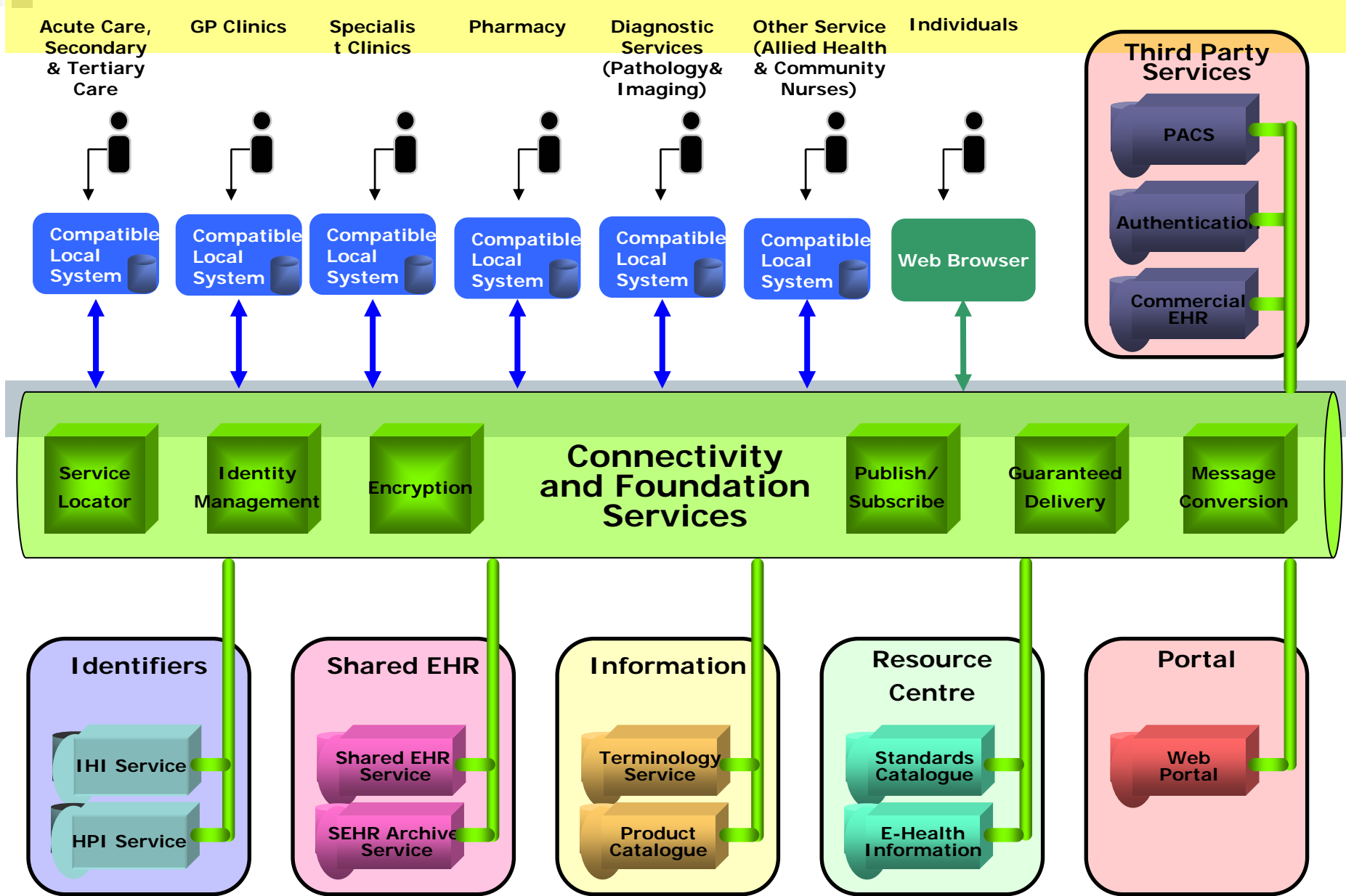


Terminologies – Nehta's work plan





Interoperability Methodology



Pathology in Australia



- A mix of Private/Public - Hospital/Stand-alone
- There has been 10 years of consolidation of pathology practices public & private
- Top 3 private labs now do around 80% of community pathology and a fair swag of hospital pathology
- 2 out of 3 pathology organisations are also top 3 in diagnostic imaging
- One of those (Sonic) is now in New Zealand, Germany and the US

Pathology in Australia



- Apart from a few AP labs both CP and AP is done in the same place and billed under the same schedule
- More than 90% of pathology is paid directly or indirectly by Government
- Practices are prevented from sub-contracting - esoteric tests are passed on but billed by the lab that does the work
- There are effective industry associations that negotiate fees - AAPP & ADIA

Pathology in Australia

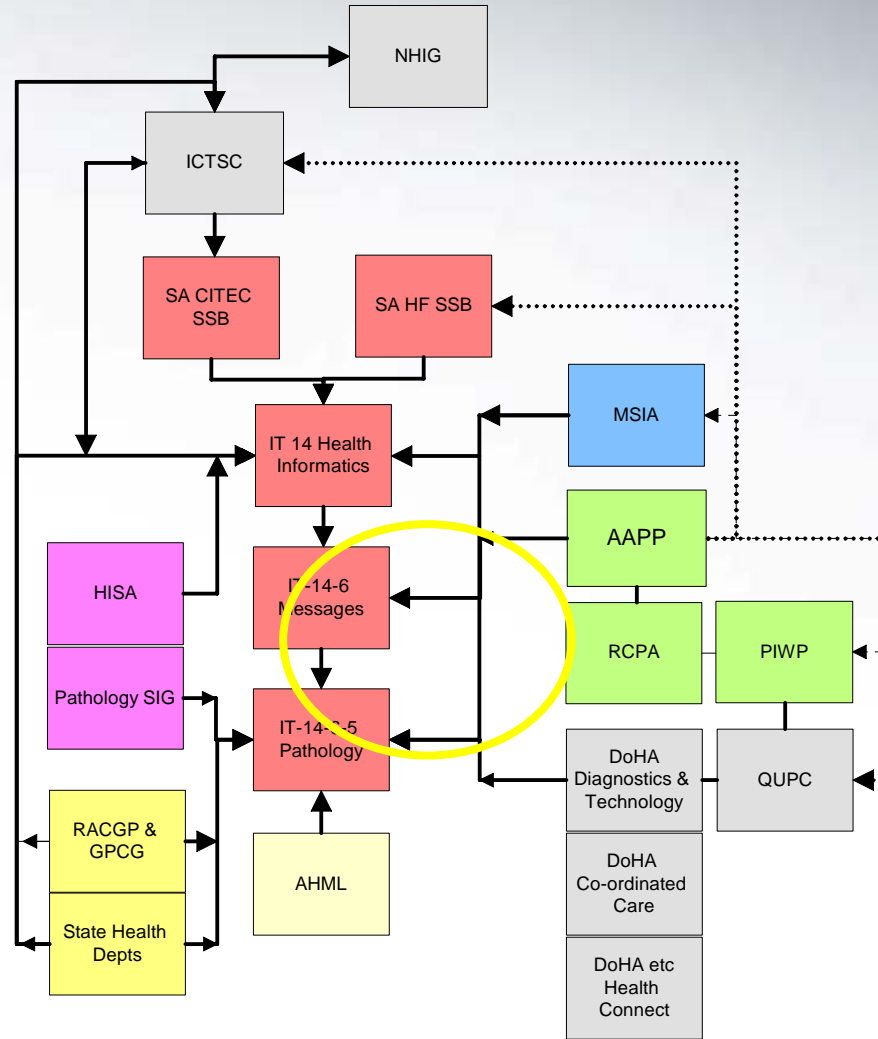


- More than 80% of primary care physicians use desktop software
- Most pathology reports are sent electronically
- Most community doctors order pathology with their practice systems

Standardisation in Australia



Governance of Pathology Informatics Standards Development



Standardisation in Australia



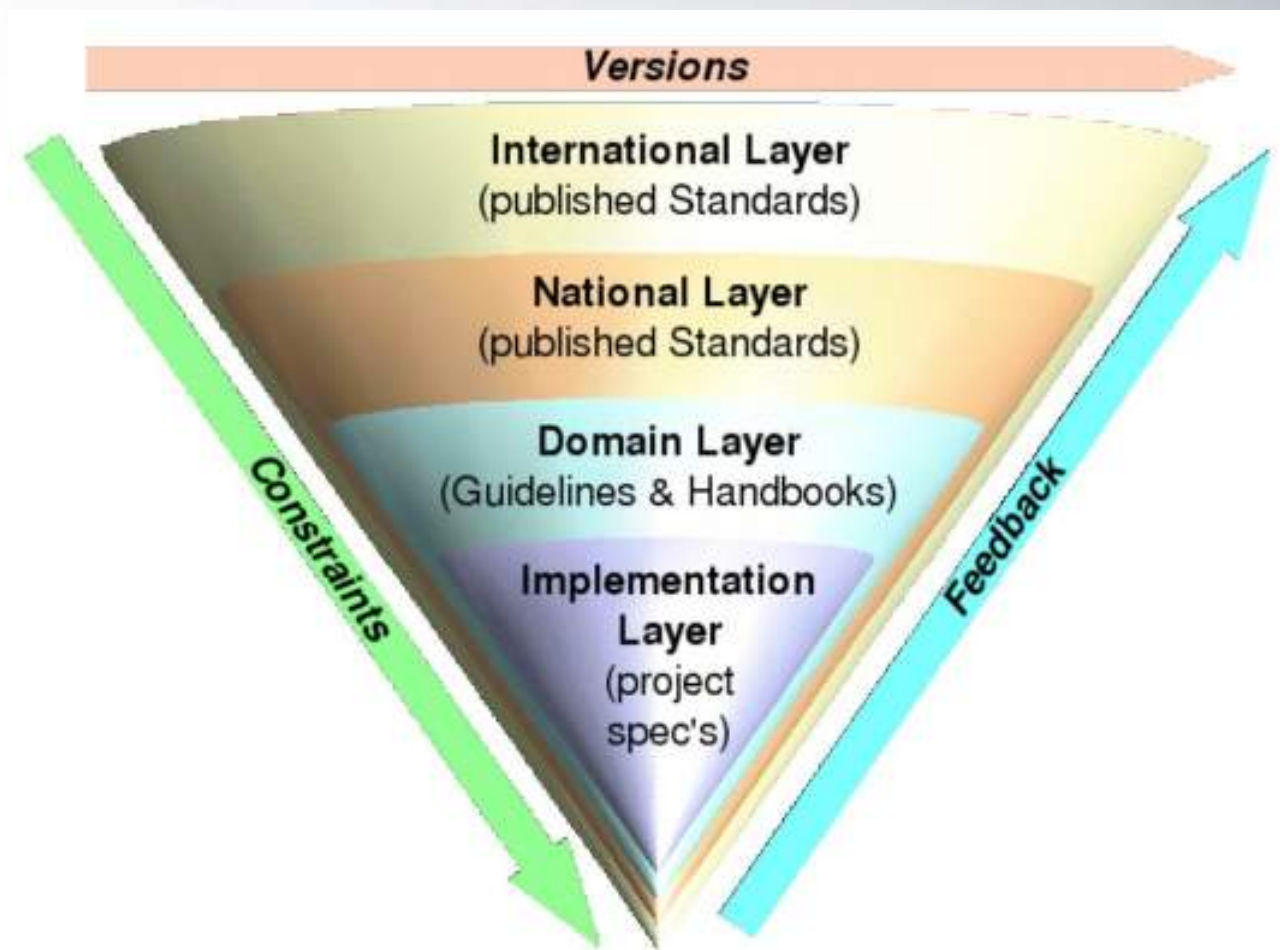
- NEHTA (National Ehealth Transition Authority) – *Identifiers, Terminology (SNOMED SDO), Data Definitions, Shared EHR, Pathology Business Requirements*
- Standards Australia – *Implementation Guides, Security, Identification, Telemedicine*
- HL7 Australia – *Affiliate to HL7.org, HL7 SOA SIG, Profile Development*
- NPAAC (National Pathology Accreditation Advisory Council) – *Requirements for Information Exchange*

Standardisation in Australia

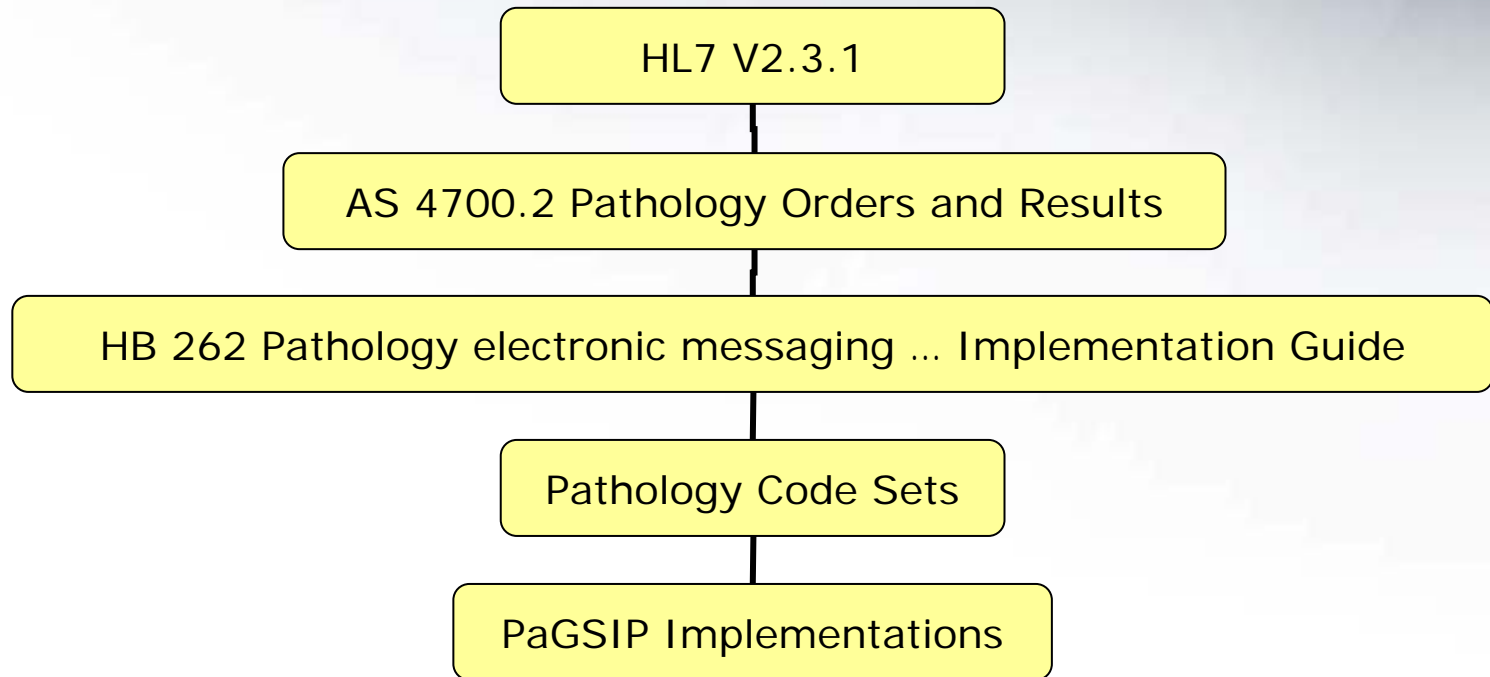


- AAPP (Australian Association of Pathology Practices) – *Industry Privacy Policy, Business Requirements*
- AIHW (Australian Institute of Health and Welfare) – *Statistical Data Definitions, National Data Dictionary, METeOR*
- NCCH (National Centre for Classification in Health) – ICD-10AM

Messaging Standards



Standards hierarchy



Health standards should



⇒ Save money

⇒ Save time

And/or

⇒ Improve health outcomes

Projects



- NEHTA Data Definitions
- SNOMED Pathology Subsets
- AAPP Privacy Policy
- Evaluation of Electronic Decision Support Systems
- Registry Reporting – Cancer & Communicable
- Lymphoma Wizard
- AAPP RFP for Communications
- Australian Healthcare Messaging Laboratory
- Interoperability Demonstration

NEHTA Data Definitions



nehta

National E-Health Transition Authority

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Standards Catalogue

[Standards Catalogue v2.0](#)

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Clinical Information Data Specifications

Contains general information about NEHTA's clinical information work, including fact sheets, clinical information specifications and guides for use.

Contacts

[Dr Eric Browne - Clinical Information](#) [Email](#)

Fact Sheets	Hits	Published		
Clinical Information Fact Sheet	368	19/08/2006	Details & Feedback	Down load

Context and Strategic Direction	Hits	Published		
Project Report: Priority Event Summaries and Code Sets, and Jurisdictional Gap Analysis v1.2	1250	16/06/2005	Details & Feedback	Down load

Information Specifications, Content and Requirements	Hits	Published		
Clinical Information Data Specification v1.1	1583	17/06/2005	Details & Feedback	Down load
Clinical Information Data Specification v1.1 - Index	1631	17/06/2005	Details & Feedback	Down load

SNOMED Pathology Subset



The screenshot shows the NEHTA website interface. At the top left is the 'nehta' logo and 'National E-Health Transition Authority'. A search bar is located at the top right. A navigation menu on the left includes 'Main Menu' (Home, Publications, Employment, Links, Privacy) and 'Standards Catalogue' (Standards Catalogue v2.0). The main content area features a breadcrumb trail: Home > Publications > Our Work > Clinical Communications > Pathology Terminology. The 'Pathology Terminology' section contains a paragraph about standardised naming and a 'Contacts' section listing 'Dean Meston - Pathology, Radiology & Medical Device Terminologies' with an 'Email' link. Below this is a table with columns for 'Information Specifications, Content and Requirements', 'Hits', and 'Published'. The table lists three items: 'Pathology Terminology Reference List v1.0 - Release Note' (272 hits), 'Draft National Reference List - Pathology Request v1.0' (148 hits), and 'Draft National Reference List - Pathology Results v1.0' (124 hits). Each row includes links for 'Details & Feedback' and 'Download'. The footer contains links for 'Sitemap', 'RSS', 'Copyright and Disclaimer', and 'Contact Us'.

nehta
National E-Health Transition Authority

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Home > Publications > Our Work > Clinical Communications > Pathology Terminology

Pathology Terminology

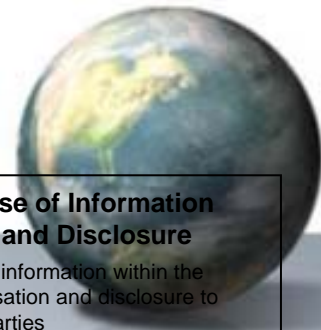
NEHTA's Pathology Terminology will deliver standardised naming and identification of pathology terms. The terminology is for use in General Practice, pathology and clinical information systems.

Contacts

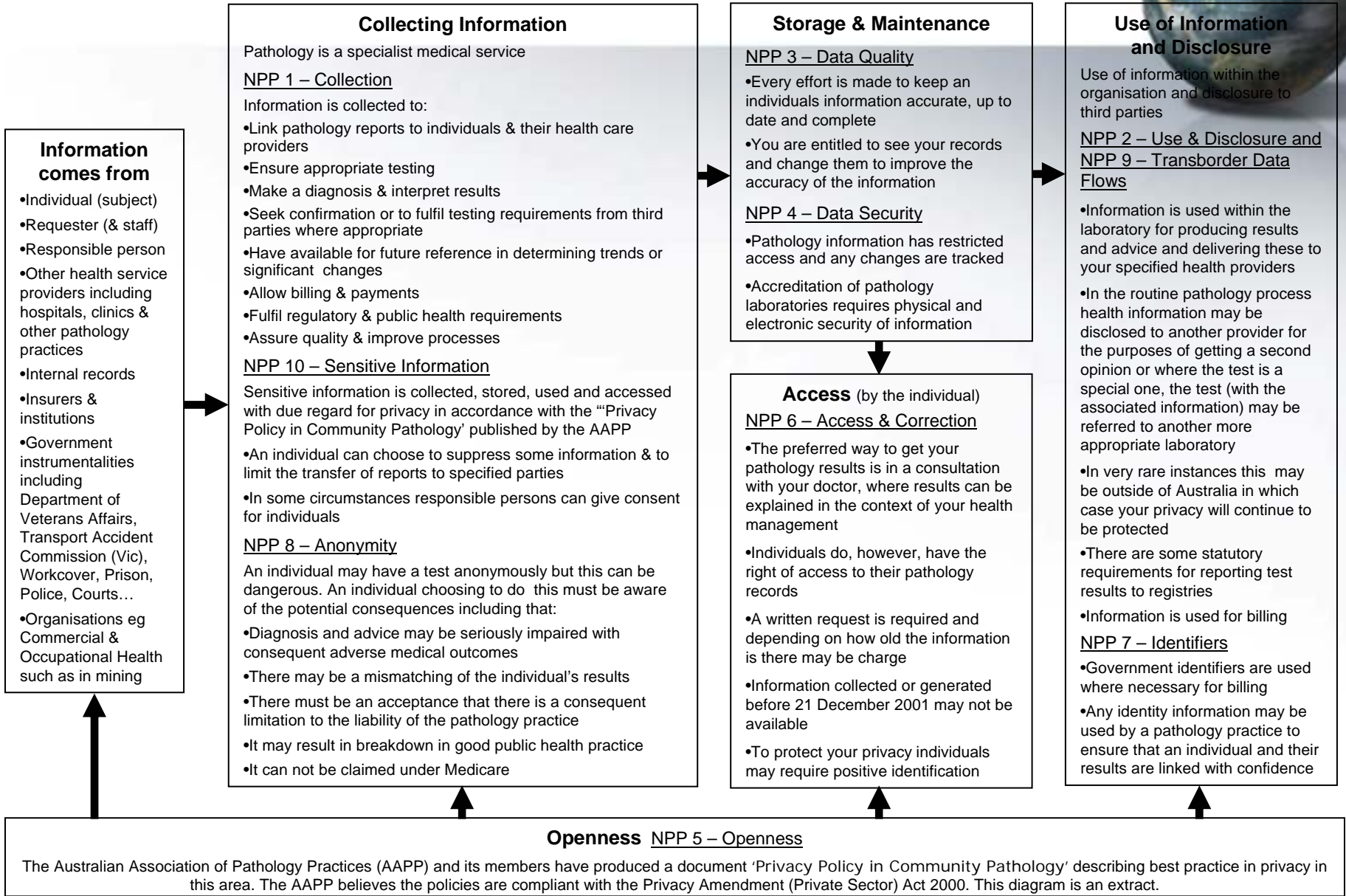
Dean Meston - Pathology, Radiology & Medical Device Terminologies [Email](#)

Information Specifications, Content and Requirements	Hits	Published		
Pathology Terminology Reference List v1.0 - Release Note	272	21/12/2006	Details & Feedback	Download
Draft National Reference List - Pathology Request v1.0	148	21/12/2006	Details & Feedback	Download
Draft National Reference List - Pathology Results v1.0	124	21/12/2006	Details & Feedback	Download

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The National Privacy Principles – Protecting privacy throughout the PATHOLOGY information life cycle



AHIC EDSS



THE UNIVERSITY OF NEW SOUTH WALES • SYDNEY • AUSTRALIA

UNSW Centre for Health Informatics

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Australian Health Informatics Council (AHIC) EDSS Guidelines

Evaluation of electronic decision support systems

The National Electronic Decision Support Taskforce report "Electronic Decision Support for Australia's Health Sector" (published January 2003, available at <http://www.health.gov.au/healthonline/publications/publications.html#Pub02>) identified the need for evaluation of electronic decision support systems (EDSS). In particular the importance of promoting evaluation of the efficacy and effectiveness of electronic decision support systems as a matter of course, using rigorous and validated methodologies.

It would be difficult to propose a single evaluation methodology that meets the diverse needs of the EDSS community. Different user groups have different evaluation tasks and objectives (depending on factors such as the stage of system development, intended goals for the system).

By providing a set of evaluation guidelines this web site is the initial stage in promoting the evaluation of EDSS. Over time this initial set will be added to in what is hoped to be an evolving resource for the EDSS community.

Guideline development

The topics of these guidelines are based upon typical EDSS evaluation questions. These questions were identified during focus groups and individual interviews with those involved in the development, purchase and evaluation of EDSS. The Centre for Health Informatics, University of New South Wales, authored these guidelines based on experience, literature reviews and consultations with local and international experts in the field.

The intended audience of these guidelines are novices at evaluation of EDSS, rather than experts. The aim of the guidelines is to raise the understanding of topic areas, with pointers to useful journal references, books and web sites for those seeking more information. They are not intended to cover every aspect of each topic, but to stimulate thinking around key techniques and to foster an appreciation of the importance of evaluation.



Centre for Health Informatics

Postal Address
Centre for Health Informatics
University of New South Wales
Coogee Campus
SYDNEY NSW 2052

Street Address
Centre for Health Informatics
University of New South Wales
Cliffbrook House
45 Beach St
Coogee NSW 2034

T +61 (2) 9385 9003/9004
F +61 (2) 9385 9006
E chi@unsw.edu.au

Registry Reporting - Cancer



Cancer eNotification in NSW

Presenter - Michael Legg
On behalf of the eNotification Project Consortium



Michael Legg & Associates



The Department of Communications,
Information Technology and the Arts (DCITA)
Information Technology Online (ITOL) program

Registry Reporting - Communicable



**NSW Procurement - Contracting Services is a Business Unit of the NSW
Department of Commerce**

**NSW Procurement - Contracting Services invites this tender for and on behalf of the
NSW Government State Contracts Control Board**

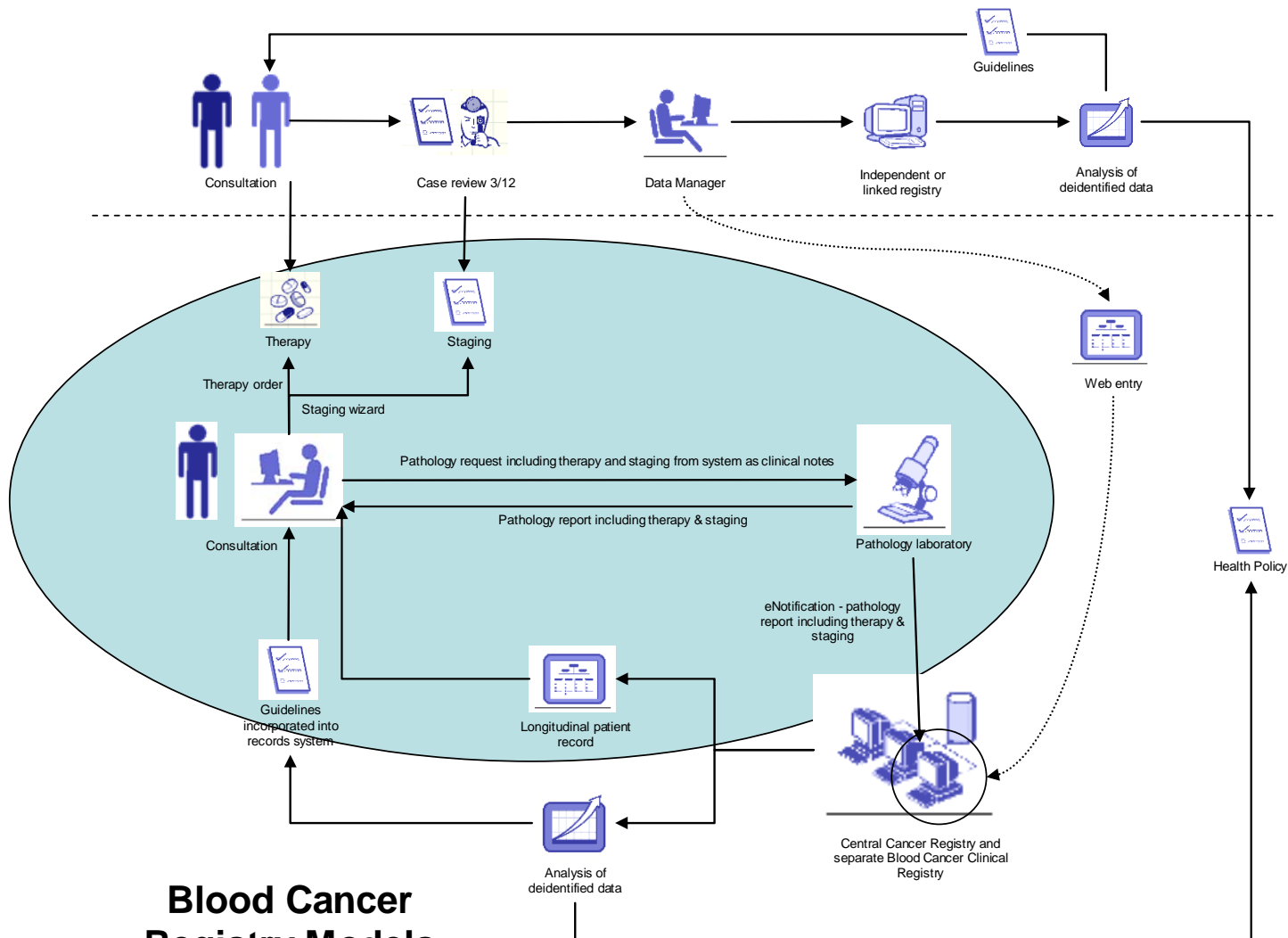
REQUEST FOR TENDER

RFT Number 0602827

**Provision of a Notifiable Conditions
Information Management System
for NSW Department of Health**

Tender Issue Date: Monday 19 February 2007

Lymphoma Wizard



Blood Cancer Registry Models

AAPP RFP



DRAFT

Request for Proposal to Provide a Communications Service

Proposal Due - 10:00am Monday 16th April 2007

by the
Australian Association of Pathology Practices
(AAPP)
March 2007 V1.4

AAPP

Australian Association of Pathology Practices
PO Box 155, Canberra 2607 ACT 2601

Australian Healthcare Messaging Laboratory



home login register

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message testing
certification
help

Australian Healthcare Messaging Laboratory 

welcome

Welcome to the Australian Healthcare Messaging Laboratory (AHML) website.

This website is designed to provide potential clients with information regarding the services offered by AHML and give clients the opportunity to register as a user of AHML.

AHML is part of the [Collaborative Centre for eHealth \(CCeH\)](#) at the [University of Ballarat](#) and is a world class on-line testing laboratory for the technical evaluation and certification of electronic messages in healthcare applications.

AHML has been accredited by the [National Association of Testing Authorities](#) in the field of Information Technology for the testing of healthcare messages. AHML is therefore a trustworthy means of ensuring that your messages meet required standards.

There are two services offered by AHML:

The AHML Message Testing service is a process of evaluating the message structure of electronic

LATEST AHML NEWS

NATA Re-accreditation Tuesday, 19-Dec-06 Over the last year AHML has undergone a rigorous re-accreditation process by NATA. Read more...
AHML Hardware / Software Upgrade Completed Monday, 20-Nov-06 The change over to the new AHML server has been successfully completed. Read more...
New Test Profile for AHML Tuesday, 13-Jun-06 A new test profile has been implemented in

Internet 120%



Interoperability Demonstration 2007

Medinfo: 12th World Congress - Health Informatics





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URLs



- HISA <http://www.hisa.org.au/>
- WCPI <http://wcpi07.org/>
- Medinfo <http://www.medinfo2007.org/>

- NEHTA <http://www.nehta.gov.au/>
- Standards Australia <http://www.e-healthstandards.org.au/>
- HL7 Australia <http://www.hl7.org.au/>
- AIHW <http://www.aihw.gov.au/>
- AAPP <http://www.aapp.asn.au/>
- AHML <http://www.ahml.com.au/>
- NPAAC
 - <http://www.health.gov.au/internet/wcms/publishing.nsf/Content/health-mpaac-index.htm>
- NCCH <http://www.ncch.com.au/>
- OpenEHR <http://www.openehr.org/>
- AHIC EDSS <http://www2.chi.unsw.edu.au/edsse/wrapper.php>